CLOEODES BINOCULARIS (EPHEMEROPTERA: BAETIDAE), A NEW COMBINATION FOR A NEOTROPICAL SPECIES OF *PSEUDOCLOEON* S. AUCTT.[1]

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ABSTRACT: *Pseudocloeon binocularis* Needham and Murphy was reevaluated and compared with known *Cloeodes* species, resulting in its formal transfer and new nomenclatural status as *Cloeodes binocularis*, new combination.

Pseudocloeon binocularis Needham and Murphy (1924) was described based on a single male adult specimen from Campamiento, Junin, Peru, July 1, 1920. At the time the description was published, J.G. Needham noted that, "Unfortunately the end of the abdomen is lost...". Although the male genitalia were not illustrated, illustrations were provided of the holotype wing and a wing from a female believed to be conspecific from La Chorrera, Loreto, Peru, as well as an illustration of the highly developed turbinate eyes and head capsule of the male holotype. The proper assignment of this species has been problematic because of the inadequacy of the description and the general state of knowledge surrounding identifications of adult baetids. The assignment of tropical and other Southern Hemisphere species previously placed in the polyphyletic genus construct *Pseudocloeon* s. auctt. (see McCafferty and Waltz, 1990) has been especially problematic.

An attempt to locate and study the type material of *P. binocularis* resulted in the recovery of only the wings illustrated by Needham and Murphy. The entire body of the male holotype (C.U. Type No. 650) including the head capsule could not be located and is presumed lost. The female cited in the description, which is also missing, was apparently not included in the type series and therefore has no formal status.

The striking similarity of this species with other known adults of *Cloeodes* Traver (see Waltz and McCafferty, 1987a,b; Kluge, 1991) led to a more formal comparison of this species with *Cloeodes*. The following characteristics of *Cloeodes* are found in *P. binocularis*: highly-developed turbinate eyes, paired braces of crossveins through the radial sector of the forewings (found also in other baetids), detached vein of MA_2 extending well beyond 0.5x distance between distal crossvein and proximal (=MA_1 to MP_1) crossvein in the forewings, and tendency for only a single marginal

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intercalary in the MP_2 cell and Cu sector of the forewings although preceding marginal intercalaries are paired (this condition is also notable in *Apobaetis* Day and *Paracloeodes* Day). Interestingly, *P. binocularis* differs from most *Cloeodes* species in that it possesses paired marginal intercalaries in the R_1-R_2 cell, a condition known among *Cloeodes* species only in the subgenus *Notobaetis* and in a South African species of *Cloeodes* (Waltz and McCafferty MS). It is possible that, as more adult material becomes available, the presence or absence of intercalaries in the R_1-R_2 cell may be found to be quite variable.

Based on the strong similarities of *P. binocularis* with *Cloeodes* species, and the lack of character states strongly supportive of its placement in either *Apobaetis* or *Paracloeodes*, I conclude that *P. binocularis* is congeneric with *Cloeodes*, and therefore, propose *Cloeodes binocularis* (Needham and Murphy, 1924), new combination.

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SOCIETY MEETING OF MARCH 24, 1993

MEDICAL ENTOMOLOGY RESEARCH IN KENYA

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Kenya is a large country, about the size of Texas, with a tropical coastal area, and increasing elevation and aridity as one moves westward. Kenya is well known for its diverse and showy wildlife, particularly the large mammals, and the human population contain well over fifty ethnic groups. Kenya is also beset with a number of severe arthropod-borne diseases (arbodiseases) including malaria, leishmaniasis, filariasis, tryposomiasis (sleeping sickness) and Rift Valley Fever. Dr. Richard Johnson, a medical entomologist in the

(Continued on page 239)